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A N N U A L R E V I E W



1988-89 ANNUAL REVIEW
ALBERTA FISH AND WILDLIFE DIVISION

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INTRODUCTION

L.J. Cooke
Assistant Deputy Minister
Alberta Fish and Wildlife Division

I once again welcome this opportunity to share with readers and concerned users of our fish wildlife resources the events of the last fiscal year, ending March 31, 1989. It is through this Annual Review that the Fish and Wildlife Division is able to communicate to the public the variety of issues, problems and accomplishments that were treated during the year.

As in the 1987-88 Annual Review, this document presents the Division's mission, the principles that guide its affairs, and the long-term objectives that our policies and programs are designed to achieve. The description of each objective is divided into two parts, Policies and Programs, and Field Activities. Policies and Programs are planned and coordinated by the branches concerned to address specific objectives. Field Activities are the operations carried out by field staff to implement the programs in the five Fish and Wildlife regions.

Much of the work of the Division could not be done without the concern, commitment and cooperation of non-government organizations and individuals. Through various programs, such as Buck for Wildlife, Use Respect, Conservation and Hunter Education, Project WILD, and Outdoor Observer, the Division interacts directly with the people who are concerned about the future of their natural heritage.

During 1988-89, the Division responded to many of these concerns. The announcement of proposed pulp mills and their associated timber developments in northern Alberta required that our staff be involved in the development of Forest Management Agreements and water quality studies.

Work has proceeded to implement the Wildlife Conservation Strategy that was announced in February 1989. The increasing interest in non-game wildlife prompted the Division to create a new Watchable Wildlife section in the Wildlife Branch. Concern about the rising number of threatened species has prompted the Division to come together with wildlife agencies of other governments to implement a national strategy to achieve the "Recovery of Nationally Endangered Wildlife" (RENEW).

As you will soon determine by reading this review, the Fish and Wildlife Division is active on many fronts. But such action is not possible without your concern and support.

FISH AND WILDLIFE DIVISION MISSION STATEMENT

**To Manage the Fish and Wildlife Resources of the Province
of Alberta for the Benefit and Enjoyment of the People**

PRINCIPLES:

1. Our priority is for the long-term interest of fish and wildlife.
2. We undertake management within the context of the Natural Resources Transfer Agreement and the Canadian Constitution.
3. Management is based on fundamental ecological principles.
4. We manage for self-sustaining populations as a priority over stocking programs.
5. We undertake management addressing resource, human, and land factors.
6. We establish and obtain acceptance for population and habitat objectives for major wildlife groupings.

OBJECTIVES:

1. To maintain and protect scarce species;
2. To restore threatened populations;
3. To re-introduce extirpated species;
4. To establish and obtain acceptance for population objectives for major wildlife groupings;
5. To provide a variety of types and amounts of outdoor recreational opportunities;
6. To maximize economic returns from the commercial use of fish and wildlife resources;
7. To strive for no net loss of quality of fish and wildlife habitat;
8. To ensure that fish and wildlife populations are compatible with community interests;

9. To develop and administer legislation in a manner which is beneficial to the fish and wildlife resource, sensitive to public needs and fosters socially acceptable behavior;
10. To minimize the negative impacts of wildlife resources on people and property;
11. To deliver a public education program designed to enhance public sensitivity and understanding of the fish and wildlife resource;
12. To encourage the participation of other government agencies, the private sector, and the public in the enhancement and development of fish and wildlife habitat;
13. To retain, enhance, acquire and develop habitat for public benefit where species supply/demand shortfalls exist that are directly related to habitat quality/quantity;
14. To promote and encourage scientific and educational activities that will enhance knowledge of the fish and wildlife resources.

**Figure 1. FISH AND WILDLIFE DIVISION
POLICY AND PROGRAM - ORGANIZATION CHART**

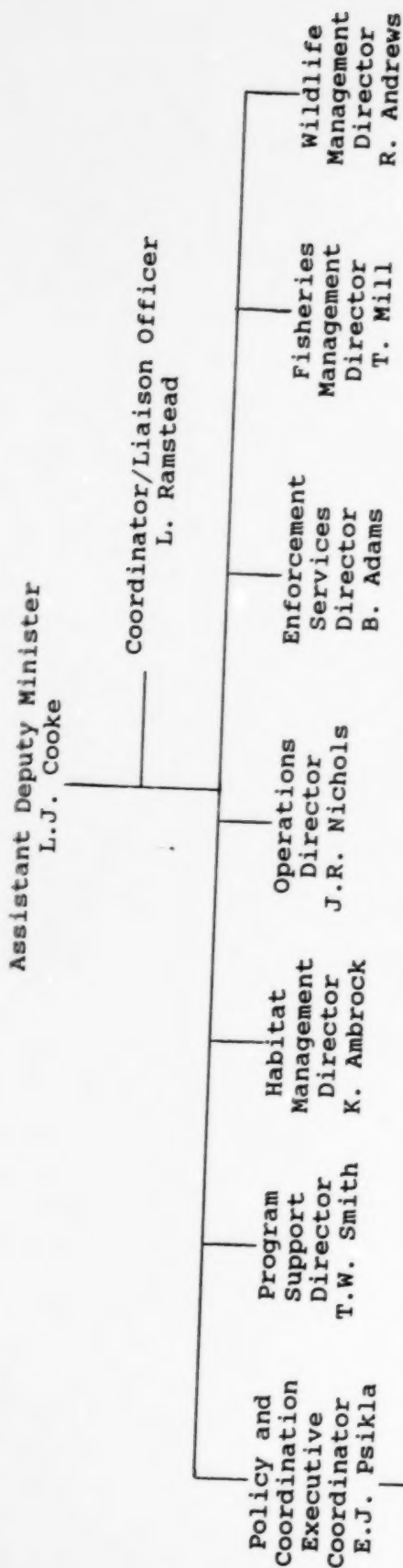


Figure 2. FISH AND WILDLIFE DIVISION
FIELD ACTIVITIES - ORGANIZATION CHART

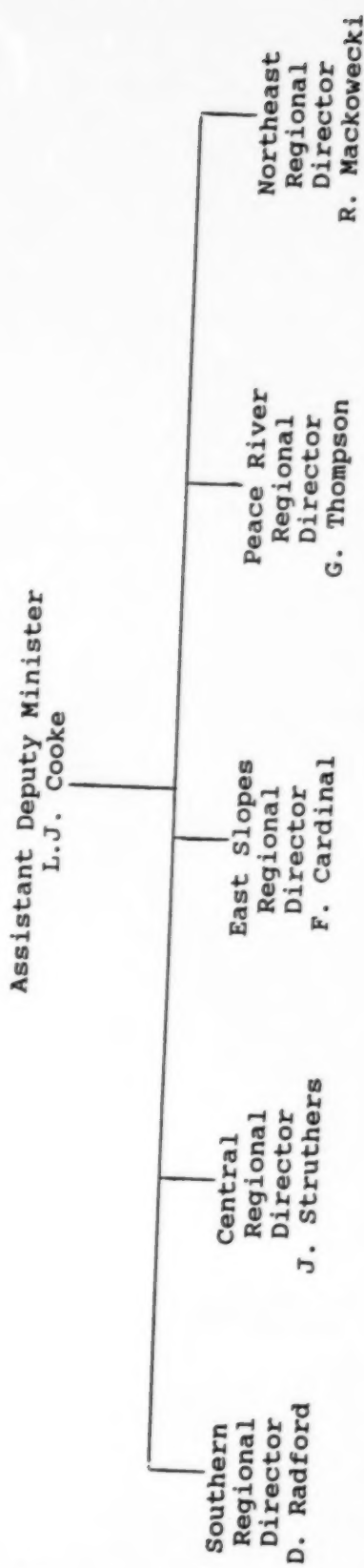


Table 1

1988-89

ALLOCATION OF FISCAL AND HUMAN RESOURCES

Programs	Approved	Budget	
		% of Total	Total Man-years
Program Support Includes the office of the Assistant Deputy Minister, Resource Economics and Assessment, and Headquarters Administrative Services	\$ 3,608,866	16.2	41.0
Wildlife Management Includes Brooks Pheasant Hatchery	3,402,179	15.3	57.4
Fisheries Management Includes Allison Creek, Calgary, Caroline, Cold Lake Hatcheries	3,445,594	15.5	59.5
Enforcement Field Services & Operations	8,978,394	40.4	214.6
Habitat Management	1,879,188	8.5	34.3
Public Information & Extension	915,545	4.1	9.8
TOTAL	22,229,766	100.0	416.6

OBJECTIVE 1. TO MAINTAIN AND PROTECT SCARCE SPECIES

POLICY and PROGRAM

Most wildlife in Alberta exist in well-established, healthy populations and require only routine management procedures to maintain appropriate population growth and survival. However, a few species or local populations have become scarce and require additional management to protect declining numbers. Management procedures include intensive population surveys, habitat protection and enhancement and relocation of individuals with good breeding potential.

Following a preliminary review of the status, distribution and abundance of wildlife species in Alberta, a Scarce Species List for each region of the province has been developed. Using these lists as guidelines, Divisional staff are collecting and reporting on the observations of these species through an existing record keeping system.

The need for a more integrated, geographically accurate data management system has been identified and work has begun to develop and refine an appropriate species based system.

FIELD ACTIVITIES

Enforcement patrols and surveillance were intensified in areas inhabited by caribou, on waters containing bull trout and sturgeon, and on spawning walleye stock at various locations throughout the province.

Restrictions and special conditions were placed on logging activities to protect mountain caribou habitat and bull trout waters.

Surveys were conducted to determine numbers and distributions of lake sturgeon, sage grouse, and mountain goats in southwestern Alberta.

In cooperation with the Lethbridge Fish and Game Association, a survey of wild Merriam turkeys in the Porcupine Hills was undertaken. As a result, a proposal was reviewed for a restricted, spring, gobbler-only hunting season in 1991.

Meetings were held with officials from Montana, British Columbia and Waterton Lakes National Park to address the grizzly bear management program in southwest Alberta.

A newly established colony of white pelicans was discovered on Scope Reservoir, near Vauxhall, with approximately 500 adult and 750 young birds observed.

OBJECTIVE 2. TO RESTORE THREATENED POPULATIONS

POLICY and PROGRAM

The Policy for the management of Threatened Wildlife in Alberta states that the chief management goal for threatened wildlife is "to restore populations in Alberta to viable levels." During 1988, activities were focused in three areas: 1) clear identification of species-based goals and management actions through the preparation of Alberta management plans, 2) implementation of management programs to restore threatened species, and 3) coordination of provincial and national recovery efforts.

The Minister, together with his federal and provincial counterparts, took a significant step toward the coordination of endangered species management in Canada in the fall of 1988 by establishing a program for the "Recovery of Nationally Endangered Wildlife" (RENEW). Under this process, species which are at risk nationally have been given priority and several national recovery plans have been initiated. The Division, in cooperation with the World Wildlife Fund, also initiated the Prairie for Tomorrow program. This joint effort is aimed at securing threatened prairie and parkland habitats and preparing detailed Alberta management plans for threatened species.

National recovery plans for the peregrine falcon and whooping crane have been completed and the piping plover plan is ready for presentation to the RENEW Committee in 1989.

Restoration of threatened species requires the active cooperation of all Albertans. In 1988, the production of a comprehensive set of "Fact Sheets for Threatened Wildlife" was initiated. These sheets, together with teacher activity kits, will be made available to educators and the public and will expand the awareness of Albertans of the needs and risks facing our threatened wildlife.

FIELD ACTIVITIES

A joint cooperative management plan for peregrine falcons in Wood Buffalo National Park was struck with Parks Canada.

A Prairies for Tomorrow project was started on Little Fish Lake to protect nesting habitat for piping plover.

Management studies continued on the restoration of woodland caribou in the Grande Cache and south Grande Prairie areas.

The Division continued a cooperative program of transplanting trumpeter swan goslings from the Grande Prairie area into suitable lakes in Elk Island National Park.

Operation Burrowing Owl, a volunteer program to encourage landowners to protect nesting habitat for burrowing owls, was started with the cooperation of the Alberta Fish and Game Association.

The Division continued maintenance of wood bison at the Hay/Zama reintroduction site, including winter feeding and watering. Six free-ranging plains (hybrid) bison were collected around the Wabasca River and Wentzel Lake areas for brucellosis and tuberculosis examinations.

A cooperative management and education program focusing on the peregrine falcons nesting in Edmonton and Calgary was carried out with AGT and the Calgary Zoo. Captive young were added to each of these nests and live television coverage of nests and educational displays were used to foster a broader understanding of the plight of this species.

OBJECTIVE 3. TO RE-INTRODUCE EXTIRPATED SPECIES

POLICY and PROGRAM

The Wildlife Act recognizes a group of 12 endangered animals within the province. These animals require specific programs and procedures in order to ensure survival of their populations. One such program involves the re-introduction of extirpated species; or species that 1) existed previously in Alberta, and 2) no longer have free-ranging populations in the province, and 3) exist elsewhere outside the province.

A three-year cooperative agreement among Alberta, Saskatchewan and the Canadian Wildlife Service was initiated to evaluate the feasibility of reintroducing the swift fox to the Canadian prairies. A National Recovery Team for Swift Fox was created to direct management and research for this species (under the RENEW process).

FIELD ACTIVITIES

With the cooperation of the Canadian Wildlife Service and the University of Calgary, the seasonal movements of swift foxes released in southern Alberta in 1987-88 were monitored. As well, an emergency winter feeding program was completed, in cooperation with the Canadian Wildlife Service and the World Wildlife Fund, to assist the wild swift foxes that have been released.

The Fish and Wildlife Division continued to cooperate with the Canadian Wildlife Service, Parks Canada, and the U.S. Fish and Wildlife Service to investigate possible sightings of black-footed ferrets in southern Alberta.

**OBJECTIVE 4. TO ESTABLISH AND OBTAIN ACCEPTANCE FOR
POPULATION OBJECTIVES FOR MAJOR GROUPINGS**

POLICY and PROGRAM

The Fish and Wildlife Policy for Alberta recognizes that the Government is charged with responsible stewardship of the renewable fish and wildlife resources. To succeed with this task, the Division must set population objectives for major groupings and conduct surveys to establish whether the objectives are being met. In addition, harvest statistics are summarized to determine the effects on hunted populations.

The Alberta resident hunter telephone questionnaire was repeated in 1988. The questionnaire was designed to determine hunter harvest and effort. One-hundred-eight (108) cooperating archery, and fish and game clubs participated in the survey where approximately 75,000 questionnaires covering 31 licence types were completed.

In accordance with the Canada/Alberta Migratory Bird Accord, plans were developed for Alberta to assume responsibility for waterfowl breeding pairs surveys, and for dealing with waterfowl disease situations.

Draft species management plans were prepared for elk, antelope, grizzly bear, cougar and wolf.

Species management plans were initiated for white-tailed deer and mountain goat.

Occasional Paper #4, "Distribution and Status of Selected Mammals in Alberta as Indicated by Trapper Questionnaire in 1987," was published.

FIELD ACTIVITIES

Wildlife surveys determined that bighorn sheep herds southwest of Pincher Creek were starting to recover from the severe die-off in 1982; that elk populations in the foothills of southern Alberta are stable; and that mountain goats transplanted to the Livingstone Range in 1987 and 1988 were reproducing and most have stayed near the area in which they were released.

The Alberta Bird Atlas program completed its second year of operation with the participation of over 2,000 volunteers. It is a volunteer program headed by the Federation of Alberta Naturalists with the cooperation of the Division.

A pilot study of fish and wildlife resource use by Treaty Indians was designed and implemented.

The first phase of the provincial walleye enhancement program was prepared, to be implemented on April 1, 1989. The daily bag limit was reduced to three walleye, the minimum size limit was set at 38 cm, and spring spawning closures were introduced on several important walleye lakes.

A special Arctic grayling management plan was designed for the Little Smoky River, to be implemented on April 1, 1989. It includes catch-and-release fishing and bait restrictions.

The Cold Lake Hatchery was closed for disinfection a second time because of an IPN Virus outbreak. The virus was determined to be from a Cold Lake water source. IPN Virus was also detected in the Sam Livingstone Hatchery in Calgary and the Raven Brood Station.

OBJECTIVE 5. TO PROVIDE A VARIETY OF TYPES AND AMOUNTS OF OUTDOOR RECREATIONAL OPPORTUNITIES

POLICY and PROGRAM

A primary objective outlined in the Fish and Wildlife Policy for Alberta is to provide a variety of outdoor recreational opportunities based on fish and wildlife resources for the benefit and enjoyment of Albertans. Environmental and economic considerations as well as quality and quantity of the recreational experience, are important in determining the level of access. In addition, examination of the needs of various fish and wildlife user groups is an important consideration.

Major programs used to provide such opportunities include maintaining public access to the resources, stocking and releasing programs to provide hunting, fishing and viewing opportunities, as well as encouraging non-consumptive uses of the resources.

The Guide to Big Game Hunting was revised and its format changed to reflect the regional nature of the big game management program, and provide a summary of species management programs.

Alberta results from the 1987 National Survey on the Importance of Wildlife to Canadians were tabulated in 1988-89. When published, the study will provide information on the nature and extent of demand for wildlife, levels of commitment of time and money to wildlife-related activities, and public support for wildlife conservation.

A new section was established in the Wildlife Branch to develop programs with regard to non-consumptive uses of wildlife. The section is called Alberta's Watchable Wildlife, and will develop programs for various users, such as bird watching, wildlife photography, and attracting wildlife to your backyard. A strategic

plan for the section was prepared, and work is proceeding on the publication of a Guide to Alberta's Watchable Wildlife Areas.

FIELD ACTIVITIES

Over six-million trout and over 37 million walleye were planted in various lakes and reservoirs in 1988-89. Aeration programs were increased to many lakes to ensure overwinter survival of certain fish populations.

Several existing fishery access sites were maintained through the Buck for Wildlife Program. Various land acquisition projects and cooperative agreements were obtained to protect and increase habitats and populations, and provide areas accessible to the public.

Approximately 14,000 day-old chicks, hatched at the Brooks Pheasant Hatchery, were distributed to 4-H Clubs and private raisers as part of the Raise and Release Program. About 12,000 six-week-old birds went to Fish and Game Association clubs for raise and release purposes. The number of 20-week-old male pheasants released by the Division throughout the province totalled 41,500.

The prairie/parkland mule deer harvest strategy (antlered mule deer draw) was implemented in accordance with the mule deer management plan.

OBJECTIVE 6. TO MAXIMIZE ECONOMIC RETURNS FROM THE COMMERCIAL USE OF FISH AND WILDLIFE RESOURCES

POLICY and PROGRAM

Fish and wildlife resources play an important role in the provincial economy. The Division promotes commercial uses as long as such uses do not interfere with long-term interest and management of the resources.

The wildlife regulations provide for wildlife service industries, such as taxidermy, tanning, butchering, trapping and outfitter-guiding. The Division also is cooperating in the development of a game farming industry in Alberta. This industry is regulated to provide protection to free-ranging wildlife populations.

Land use applications (e.g. logging and petroleum exploration) are reviewed to ensure protection of traplines, furbearers and game populations.

Habitat enhancement for a variety of species indirectly benefits commercial activities that are currently restricted by the supply of the fish and wildlife resource.

In consultation with trappers and trapper organizations, quotas on lynx and fisher were implemented in certain portions of the province. The registration of lynx pelts has provided very accurate and revealing information that will greatly assist management for the 1989-90 season.

Regulations were introduced to assure trapping devices are used more humanely. An additional 10 trappers were given special assistance on their areas to increase the use of humane devices and encourage better management practices.

Regulations were introduced requiring Outfitter-Guide Permit holders to pass a standard first aid course and obtain bonding and insurance before renewing their permits. In addition, the new regulations required non-residents and non-resident-aliens to enter into guiding and outfitting contracts only with holders of Outfitter-Guide Permits.

FIELD ACTIVITIES

The 1988-89 commercial harvest of fish was 2,548 tonnes (round weight), with a landed value of \$2.9 million. The reduction from the 1987-88 figures was in large part the result of the loss of production from Winagami Lake due to winter-kill. Surveillance patrols centred in the Lesser Slave Lake area were increased to minimize illegal activities in the commercial fishery.

The overall value of furs harvested showed a drastic decline from \$7.4 million in 1987-88 to \$2.3 million in 1988-89. This decline was attributed to falling world prices on furs (especially long hair furs), a decrease in the number of trappers (30%), unusually heavy snow conditions that came early in the season (restricting access), and the limited quota on sensitive species. Of the major species, the greatest changes in production occurred in declines of 71% for muskrat, 64% for beaver, 62% for fox, 61% for coyote, 60% for mink, and 53% for marten. This decreased production coupled with the drop in fur values of 20 to 40% resulted in the most drastic overall production change since 1940.

Enforcement staff spent 1,259 hours conducting inspections of commercial establishments dealing in either wildlife or fish products, 4,817 hours supervising various aspects of the fur industry, and 10,235 hours supervising, monitoring and collecting data on commercial fishing activities.

**OBJECTIVE 7. TO STRIVE FOR NO NET LOSS OF QUALITY OR
QUANTITY OF FISH AND WILDLIFE HABITAT**

POLICY and PROGRAM

Access to appropriate amounts of high-quality habitat is basic to the survival of all fish and wildlife populations. As the sphere of human influence widens, it becomes increasingly important to assess the amount and quality of the habitat remaining for other species.

The announced forestry developments required active participation by habitat and other Fish and Wildlife staff in the preliminary planning of the projects. The Daishawa Canada Co. Ltd. project in Peace River resulted in preliminary water quality surveys, fish species distribution, and fish tissue analysis for dioxins and furans for baseline control purposes prior to mill discharge into the Peace River.

A Wetland Policy for Alberta was completed in cooperation with the Alberta Water Resources Commission and was forwarded for Cabinet approval.

FIELD ACTIVITIES

In accordance with the North American Waterfowl Management Plan, plans for the Buffalo Lake First Step Project were finalized, and a draft Prairie Habitat Joint Venture -- Alberta Implementation Plan was completed in cooperation with Ducks Unlimited, the Canadian Wildlife Service, and Alberta Agriculture.

The Sub-basin Watershed Management Study (started in 1985) continued in the Peace River Region to address water and soil related problems and refine the methods for water management plans.

Fisheries instream flow surveys were completed on the St. Mary's, Waterton and Belly Rivers in 1988-89, and ongoing surveys were continued on the Highwood River.

Division staff continued to provide input to the fish and wildlife mitigation plan for the Oldman River Dam project, through the Department of Public Works. The plan is designed to minimize the potentially negative impacts of the project on wildlife species, take advantage of mitigation opportunities arising from the development of the dam and reservoir, and strive towards the objective of no net loss of recreational fishing opportunities.

Enforcement staff investigated 379 occurrences of alleged environmental damage, and spent an additional 1,100 hours on surveillance and investigation of complaints relating to the environment.

**OBJECTIVE 8. TO ENSURE THAT FISH AND WILDLIFE POPULATIONS
ARE COMPATIBLE WITH COMMUNITY INTERESTS**

POLICY and PROGRAM

The mission statement for the Fish and Wildlife Division clearly states that the resources will be managed "for the benefit and enjoyment of the people." In order to achieve this goal it is necessary for the Division to interact directly with the public and determine the interests and needs of the community.

Policy procedures of the Division encourage activities that provide public input in planning and management decisions. As an example, the Fish and Wildlife Advisory Committee, consisting of representatives from organizations interested or concerned about fish and wildlife matters, is a means for public interest groups to participate in managing the fish and wildlife resources. At a more local or individual level, Fish and Wildlife staff attend numerous community and special interest meetings to explain management philosophies, principles and activities as well as to listen to the concerns of the public. In addition, considerable time is spent responding to written requests for information.

FIELD ACTIVITIES

A local public advisory council was established in the Lac La Biche area to deal with fisheries concerns and problems.

Several open houses were attended by Division staff in the Peace River and Northeast regions to communicate with the public about the Division's role in the proposed forest projects in those areas.

In the Eastern Slopes Region, fall meetings were held with special interest groups to obtain local input for updating Wildlife Regulations.

Work continued with the Eastern Irrigation District (EID) Cooperative Ventures Agreement with Ducks Unlimited. The Fish and Wildlife Division also continued work under the Landowner Habitat Agreement in the EID and Bow River Irrigation District, to secure and develop 5,700 acres of wetland and upland habitat. Three other irrigation districts (the Lethbridge Northern Irrigation District, Taber Irrigation District, and St. Mary River Irrigation District) have supported habitat development efforts and several projects were planned for construction.

Negotiations were conducted with the Lubicon, Whitefish, and Sturgeon Lake Indian bands with respect to fisheries and wildlife concerns as part of their respective land claims. Agreements have been finalized with the Sturgeon Lake and Whitefish bands, while negotiations of a wildlife agreement with the Lubicon Band have

been essentially completed pending negotiations of their other land claim issues.

**OBJECTIVE 9. TO DEVELOP AND ADMINISTER LEGISLATION IN A
MANNER WHICH IS BENEFICIAL TO THE FISH AND WILDLIFE
RESOURCE, SENSITIVE TO PUBLIC NEEDS AND FOSTERS
SOCIALLY ACCEPTABLE BEHAVIOUR**

POLICY and PROGRAM

The Division continued its administration of the 1987 Wildlife Act and the Federal Fisheries Act.

Regulations were introduced to assure trapping devices are used more humanely.

FIELD ACTIVITIES

Approximately 94,000 hours were spent on activities relating to enforcement of wildlife and fisheries legislation. Enforcement staff responded to 27,680 occurrences, of which, 15,443 were problem wildlife and enforcement occurrences.

A total of 5,480 calls were reported to the toll-free Outdoor Observer line in 1988-89, an increase of 23% from the 1987-88 fiscal year. The public is encouraged to use the Outdoor Observer program to report illegal activities concerning fish, wildlife or habitat anywhere in the province. The toll-free telephone number (1-800-642-3800) is monitored 24 hours a day, everyday of the year. Callers can remain anonymous and all information is confidential.

**OBJECTIVE 10. MINIMIZE THE NEGATIVE IMPACTS OF WILDLIFE
RESOURCES ON PEOPLE AND PROPERTY**

POLICY and PROGRAM

The Fish and Wildlife Policy for Alberta states that the Government will assist in preventing or controlling wildlife damage to property or threat to human life. To achieve this objective, the Division continued the Waterfowl Crop Damage Prevention and the Crop Damage Compensations programs, with the cooperation of Environment Canada and Agriculture Canada, respectively. These programs are designed to prevent or minimize the negative effects of waterfowl and other wildlife on agricultural lands.

The Use Respect program was continued to reduce conflicts between landowners and persons seeking access to private lands for recreational purposes. The program encourages communications among all users of fish and wildlife resources. Additional programs

included response to problem wildlife occurrences and efforts to reduce encounters with wildlife in high risk situations.

One-year agreements were signed with 1) Environment Canada for continued operation of the Crop Damage Prevention Program, and 2) Agriculture Canada for continuation of the Crop Damage Compensation Program.

FIELD ACTIVITIES

Staff responded quickly to numerous problem wildlife requests. For example, enforcement staff reported 8,525 occurrences in 1988-89: 2,569 cases involved beaver, 1,060 involved bears, and 870 involved skunks.

The Division provided input to development proposals to minimize wildlife conflicts, e.g. trail routing to avoid bear habitat, garbage management requirements, reclamation seed mixes to reduce attraction of ungulates to certain sites.

OBJECTIVE 11. TO DELIVER A PUBLIC EDUCATION PROGRAM DESIGNED TO ENHANCE PUBLIC SENSITIVITY AND UNDERSTANDING OF FISH AND WILDLIFE RESOURCE MANAGEMENT

POLICY and PROGRAM

The delivery of a public education program is essential to promote public interest, understanding and cooperation in managing fish and wildlife resources. In addition, by increasing awareness and information about the resources, special interest groups, corporate groups and private individuals will better appreciate the wise use of our natural resources.

The Division developed and conducted a variety of organized public information programs including Trapper Education, Conservation and Hunter Education, and Fishing Education. The compulsory hunter test program for all first-time hunters was continued in 1988-89. Project WILD workshops were promoted and aimed specifically at increasing awareness of fish and wildlife resources among school-aged children.

FIELD ACTIVITIES

Over 3,600 potential hunters were tested since the First Time Hunter Test became mandatory in 1987. Of these, 60% passed and the balance were encouraged to enrol in the Conservation and Hunter Education Program.

Individuals whose hunting privileges have been suspended by court order must pass an exam before obtaining a new licence. In 1988-89, 203 candidates passed the violators' test. Almost 3,500 people have taken this test since the program began in 1981.

Trapper Education courses were conducted at 23 locations with 290 participants concluding the courses.

Approximately 4,000 volunteer instructors from every Alberta community presented the Division's Conservation and Hunter Education, Fishing Education and Project WILD programs to over 100,000 Albertans in 1988-89.

Over 3,000 visitors participated in the interpretive program at the Brooks Pheasant Hatchery.

A total of 4,578 hours were expended by enforcement staff attending various public service meetings.

**OBJECTIVE 12. TO ENCOURAGE THE PARTICIPATION OF OTHER
GOVERNMENT AGENCIES, THE PRIVATE SECTOR, AND THE PUBLIC
IN THE ENHANCEMENT AND DEVELOPMENT OF FISH AND WILDLIFE
HABITAT**

POLICY and PROGRAM

The task of managing fish and wildlife resources cannot be accomplished by government alone. In order to maintain and improve wildlife populations and provide maximum benefits to the resource and the users, it is necessary that others be involved. One of the most important areas that both government and non-government organizations can cooperatively focus their activities has been securing habitat for wild species.

FIELD ACTIVITIES

Non-government organizations, such as the Alberta Fish and Game Association, Trout Unlimited and Ducks Unlimited, implemented 103 habitat development projects with funding grants provided through the Buck for Wildlife Program.

In cooperation with several Canadian and American partners (both government and non-government), the Fish and Wildlife Division participated in the delivery of the "First Step" project in Alberta, as part of the North American Waterfowl Management Plan. The project involves the expenditure of \$2.0 million to acquire and manage waterfowl habitat in the Buffalo Lake Moraine area of east central Alberta. The project was designed to provide both wildlife benefits to Albertans and agricultural benefits to the local landowner.

The Eastern Irrigation District Cooperative Venture Agreement which serves to maintain and protect wetland habitat in conjunction with irrigation canal rehabilitation, has secured over 706 hectares of wetland habitat in the Brooks area.

Daishawa Canada Co. Ltd. contributed financially to expanded wildlife aerial inventories in their Forest Management Agreement area, north of Peace River. The data collected will be used to incorporate wildlife management and timber management into an integrated forest management plan.

**OBJECTIVE 13. TO RETAIN, ENHANCE, ACQUIRE AND DEVELOP
HABITAT FOR PUBLIC BENEFIT WHERE SPECIES SUPPLY/DEMAND
SHORTFALLS EXIST THAT ARE DIRECTLY RELATED TO HABITAT
QUALITY/QUANTITY**

POLICY and PROGRAM

As stated in Objective 7, habitat is essential for thriving populations of fish and wildlife. To deal with situations where quality or quantity is declining, the Division has developed specific programs and procedures to try to reverse or at least slow down deterioration. For example, the Buck for Wildlife program was initiated to focus funds and activities towards securing appropriate habitat.

Funding was secured from Wildlife Habitat Canada and the federal Department of Fisheries and Oceans for the three-year pilot Riparian Habitat Project. This project is patterned after the Landowner Habitat Program and will initially focus on retaining habitats along the Battle River in central Alberta.

FIELD ACTIVITIES

During 1988-89, 122 fisheries and wildlife habitat enhancement projects were developed under the Buck for Wildlife Program. These projects protected and enhanced over 2,196 hectares of fisheries habitat and 17,390 hectares of wildlife habitat.

The Fish and Wildlife Division (through the Department of Public Works, Supply and Services) purchased over 380 hectares of fisheries and wildlife habitat in 1988-89.

The third year of the three-year Landowner Habitat Project was completed. The program has secured over 8,950 hectares of wildlife habitat on privately owned lands in Red Deer and Minburn counties and the Bow River and Eastern Irrigation District. Interest in the program continued to grow in the Northeast Region, especially in the County of Minburn and other areas which are not currently involved in the program, such as the County of Barrhead. An

evaluation of the program was conducted in 1988-89, and a proposal was developed for the purpose of securing lottery funding to expand the program throughout the province.

The Streambank Fencing Program continued in 1988-89 with eight new fencing projects being undertaken on Dogpound Creek, Beaverdam Creek and Clear Creek. A total of 14 km of fence was constructed to protect over 7 km of trout stream and 24 hectares of riparian habitat.

At least 42 wildlife and 15 fisheries habitat projects were undertaken in the Peace River Region. Of particular note is the expanding use of prescribed burns to create wildlife habitat. The Peace River Region created 885 hectares of ungulate habitat by lighting four prescribed burns. The use of prescribed burns as a management tool is increasing as it is the most cost effective way of creating ungulate habitat.

A number of integrated land use plans were implemented, such as the Castle River and Livingstone--Porcupine Hills Plan. Several other land use plans were finalized, such as the Poll Haven Plan, Crowsnest Corridor Plan and the Southern Regional Plan.

**OBJECTIVE 14. TO PROMOTE AND ENCOURAGE SCIENTIFIC AND
EDUCATIONAL ACTIVITIES THAT WILL ENHANCE KNOWLEDGE OF
THE FISH AND WILDLIFE RESOURCE**

POLICY and PROGRAM

The Fish and Wildlife Policy encourages scientific study of fish and wildlife resources conducted in a way that is acceptable to the citizens of Alberta. These activities generally are in association with academic institutions or government research agencies. In addition, the Division promotes less formal educational activities that improve knowledge of the resources. The Wildlife Regulations and Permitting section of the Wildlife Branch reviews and issues Research Permits and Collection Licences for a variety of research projects.

The Division cooperated with the Canadian Wildlife Service, World Wildlife Fund (Canada), and Wildlife Habitat Canada to fund management-oriented research on several threatened, endangered and scarce species, including: lichen regeneration after disturbance as a key element of woodland caribou habitat; burrowing owl habitat use and site fidelity; piping plover distribution and habitat use; the distribution of loggerhead shrike in Alberta; and the identification of key habitats for migratory shorebirds in the province.

FIELD ACTIVITIES

The Buck for Wildlife Program funded an elk range enhancement evaluation by the University of Alberta.

Controlled-burn projects were evaluated by the Hinton Forest Technology School.

The Fisheries Branch cooperated with the University of Lethbridge on a brown trout spawning study on the upper Bow River.

A joint study between the University of Alberta and the Fish and Wildlife Division to determine a method of control for algal biomass and production in freshwater lakes was continued at Figure Eight Lake northeast of Peace River. Most of the lakes in that area are shallow, nutrient-rich water bodies supporting "pea soup" concentrations of blue-green algae in summer. The study is using lime to precipitate and control the algae and prevent subsequent winter-kill of fish. Preliminary results have been encouraging and the joint study is continuing.

Southern Region staff participated in a an inter-agency task force to assess the feasibility of utilizing white amur (grass carp) for vegetation control in irrigation canals in southern Alberta as an alternative to using herbicides.

River Lakes and Land (RL&L) Environmental Services Ltd. continued monitoring movements of radio-tagged lake sturgeon in the South Saskatchewan River as part of a grant from the Recreation, Parks and Wildlife Foundation supported by the Fish and Wildlife Division.

Southern Region staff worked with Dr. Luigi Morgantini of the University of Alberta on an elk study south of Highway 3. The purpose of the study was to identify elk populations, movements, habitat types used and critical habitat for further elk management plans.

A final report of the Kananaskis Grizzly Bear Study was completed for publication.



Alberta

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